

THREE NEW SPECIES OF DERBIDÆ (HOMOPTERA)

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FOUR TEXT FIGURES

Zoraida kalshoveni sp. nov. Figs. 1 and 2.

Male.—Length, 3.6 millimeters; tegmen, 10; wing, 1.

Subcosta obscure, lying beneath radius; subcostal cell widened at apex with a round, raised callus in the middle; radial cell very narrow up to callus.

Anal segment large, anus about a third from apex, narrowed slightly on basal half, apex narrowed, truncate; lateral margins of pygofer angularly produced, medioventral margin angularly produced, genital styles long, narrow on basal half, apical half considerably widened, outer margin of apical half curved over, the inner margin with a curved spine about the middle.

Vertex and face yellow; clypeus light brown, darker between the carinæ; pronotum light on sides, darker in the middle; mesonotum light brown; legs light brown; abdomen brown, yellow near base; genital styles darker. Tegmina hyaline; costal, subcostal, and radial cells red, the callus in apex of radial cell fuscous, shining; a brown band from media to clavus over the basal portion of the fork of cubitus including the apical half of basal cell, the veins in this fuscous area yellow; veins light brown. Wings hyaline, slightly fuscous.



FIG. 1. *Zoraida kalshoveni* sp. nov.; male genitalia, lateral view.

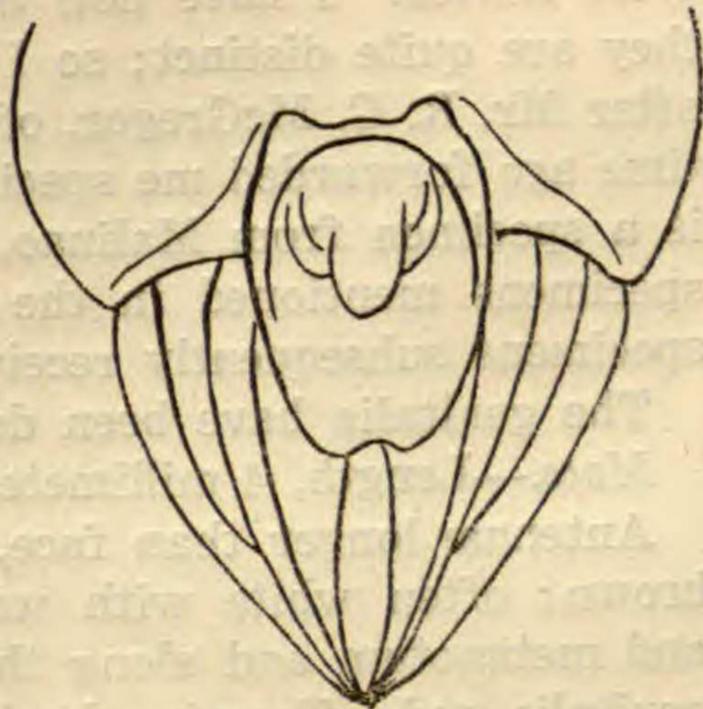


FIG. 2. *Zoraida kalshoveni* sp. nov.; female genitalia, dorsal view.

Female.—Length, 5.3 millimeters; tegmen, 12.3; wing, 1.2. Pregenital plate angularly produced from sides to middle. Anal segment small, reaching about halfway to apex of styles, sides slightly curved, apex slightly emarginate. In coloration similar to male.

SINGAPORE (*C. F. Baker*), 1 male and 1 female. JAVA, Bodjanegoro (*L. Kalshoven*), 1 female.

Zoraida bakeri sp. nov. Fig. 3.

Female.—Length, 5.3 millimeters; tegmen, 10; wing, 1. In general build and venation this species is similar to *Z. kalshoveni*.

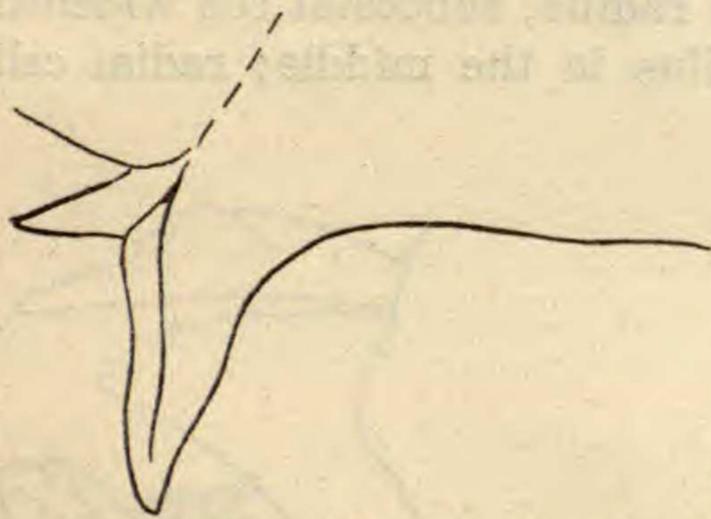


FIG. 3. *Zoraida bakeri* sp. nov.; female pregenital plate, lateral view.

Mesonotum light brown, darker over basal portion. The anal segment is longer, broadest on basal third, gradually narrowed to the truncate apex. The pregenital plate in lateral view turned ventrad at a right angle, in full view the apex is rounded.

BORNEO, Sandakan (*C. F. Baker, 9533*), 1 female.

Zoraida mcgregori sp. nov.

Zoraida sinuosa (Boheman) ? MUIR, Philip. Journ. Sci. § D 12 (1917) 84, Pl. 1, fig. 14.

In the above-cited paper I allowed the Philippine specimens to stand under *sinuosa* until I could examine specimens from West Africa. I have now been able to do this and find that they are quite distinct; so I now name the Philippine species after Mr. R. C. McGregor, of the Bureau of Science, who some time ago forwarded me specimens for identification. The type is a specimen from Malinao, Tayabas, and the paratypes, the specimens mentioned in the previous paper as well as other specimens subsequently received, from the Philippines.

The genitalia have been described and figured previously.

Male.—Length, 4 millimeters; tegmen, 10; wing, 5.

Antennæ longer than face, cylindrical, stramineous or light brown; often white with waxy secretion over mesoscutellum and metanotum and along the middle of dorsum of abdomen; genitalia red. Tegmina hyaline, veins red or brown; fuscous over costal, subcostal, and radial cells in basal median cell,

running into median cells at base of sectors; a faint fuscous mark at apex of apical cells; apical veins brown to apex.

Female.—Length, 4 millimeters; tegmen, 11; wing, 5. Female similar in color to male. The tegmina have a slightly opaque, milky appearance.

Zoraida sinuosa (Boheman). Fig. 4.

I herewith publish a figure of *Zoraida sinuosa* (Boheman) drawn from a specimen from Sierra Leone in the British Museum. A comparison of this figure with the figure cited in the synonymy of the preceding species will show the distinct differences.

Zoraida cumulata (Walker).

Zoraida insulicola Kirkaldy,
Muir, Philip. Journ. Sci. § D
12 (1917) 81.

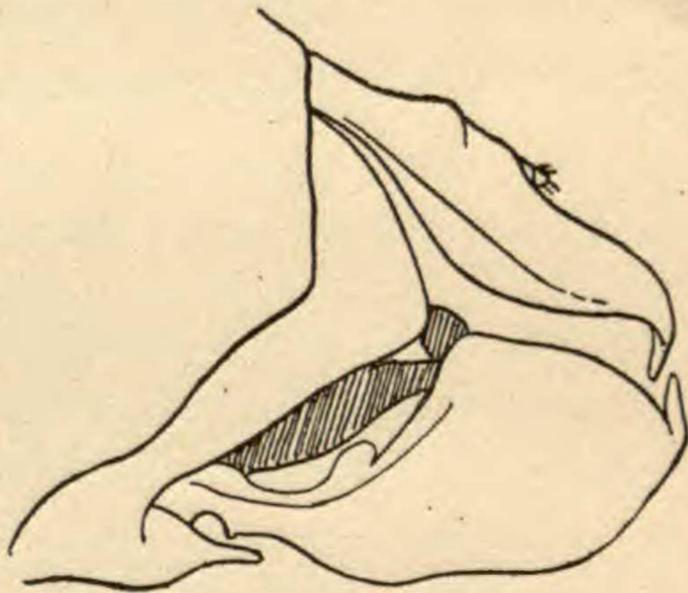


FIG. 4. *Zoraida sinuosa* (Boheman); male genitalia, lateral view.

I have examined the type of this species in the British Museum; it is the same as Kirkaldy's species.

Genus LEUROMETOPON nomen novum

Mindana Muir, Philip. Journ. Sci. § D 12 (1917) 94, preoccupied in Coleoptera, Allard, Bull. ou C. R. Soc. Ent. Belg. 33 (1889) cxii.

I have to thank Doctor Bergroth for pointing out that the name *Mindana*, proposed by me in 1917, is preoccupied in Coleoptera. As a substitute for *Mindana* Muir I offer *Leurometopon*.

ILLUSTRATIONS

TEXT FIGURES

- FIG. 1. *Zoraida kalshoveni* sp. nov.; male genitalia, lateral view.
2. *Zoraida kalshoveni*, sp. nov.; female genitalia, dorsal view.
3. *Zoraida bakeri* sp. nov.; female pregenital plate, lateral view.
4. *Zoraida sinuosa* (Boheman); male genitalia, lateral view.

PHILIPPINE RICE

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Although rice has constituted the chief staple food of the inhabitants of the Philippine Islands for centuries, very little attention and study have been devoted to it, so that the 36,500,000 cavans of palay produced during 1920 might well be regarded as the result of the bounteousness of the soil rather than the product of the efforts of the farmers. However, the peculiar attitude of scientific men and farmers and their apathy toward its study are not confined to the Philippines, but are found in other oriental rice-producing countries as well. This, in part, is responsible for the prevalence of existing primitive methods of rice culture in the Islands; no great use is as yet made of modern implements, fertilizers, and seed selection. Very little attention has been paid to the study of the chemical composition of the kernels, the leaves, the stems, and the roots at various stages of maturity to determine the food value at such different stages, both to men and to domestic animals, and the relations of the variation of these chemical constituents to irrigation, fertilizers, climatic conditions, etc.

The present paper is simply a compilation of the analyses of the kernels of different varieties of rice received in the Bureau of Science from time to time, and is offered in the hope that it may serve to indicate slightly the more important bearings and relations of chemical research to scientific farming.

Of the many varieties of Philippine rice submitted by the Bureau of Agriculture for phosphorus determination, about twenty-three have been also subjected to a general analysis of percentage of moisture, of ether extract, of protein, of crude fiber, and of carbohydrates and starch. For several years these samples have been kept under close observation by the Bureau of Agriculture for variety tests, and in cultivating them efforts have been directed toward making conditions of growth as nearly uniform as possible.¹

¹ Camus, José S., Rice in the Philippines, Bull. P. I. Bur. Agr. 37 (1921).